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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/566,803	01/30/2006	Reinhold Elferich	DE030259US1	8047

24738 7590 11/06/2006

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EXAMINER

RILEY, SHAWN

ART UNIT PAPER NUMBER

2838

DATE MAILED: 11/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/566,803	<b>Applicant(s)</b> ELFERICH ET AL.	
	<b>Examiner</b> Shawn Riley	<b>Art Unit</b> 2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>jan06</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Specification*

The disclosure is objected to because of the following informalities: lack of titling in the specification, such as background of the invention, summary of the invention, etc. Appropriate correction is required.

The disclosure is objected to because of the following informalities: The summary of the invention, should not refer to claims which are subject to change and being amended and will lead to confusion. It is recognized that Applicant's wish to provide a basis of matter in the specification to avoid, *inter alia*, a new matter rejection. However, once recited (i.e., when first filed) in the original application's claims, a first paragraph U.S.C. 112 rejection based on lack of written description (or enablement or best mode for that matter) would not be proper. The written description is not the place to introduce the legal phraseology of the claims. The specification (other than the claims) should be written so that the average person who is skilled in the art (not in legal nuances) would be aided by reading the information. Appropriate correction is required.

Applicant(s) is(are) reminded of the proper content of an abstract of the disclosure. The abstract should not refer to purported merits (**advantageously, this provides for a very simple and efficient rectification** and voltage control) or speculative applications of the invention and should not compare the invention with the prior art. Correction is required.

Applicant(s) is(are) reminded of the proper language and format for an abstract of the disclosure.

The form and legal phraseology often used in patent claims, such as “**comprising**”,

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"means", and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

Correction is required. See MPEP § 608.01(b).

### *Claim Rejections - 35 U.S.C. § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-13 are rejected under 35 U.S.C. §102(b) as being fully anticipated by Barlage (U.S. Patent 5,396,412). Barlage shows,<sup>1</sup> (in, e.g., the(ir) figures 2 & 4 and corresponding disclosure)

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<sup>1</sup> Note claims will be addressed individually and the material in parentheses are the examiner's annotated comments. Further unless needed for clarity reasons, recited limitation(s), will be annotated only upon their first occurrence. Annotated claims begin with the phrase "As to claim". Claims that are not annotated are seen as having already had the invention(s) addressed previously in an annotated claim and may be repeated for convenience of the applicant/examiner. Bolded words/phrases indicate rejected material based 112 paragraph rejections. Underlined words/phrases indicate objected to material. For method claims, note that under MPEP 2112.02, the principles of inherency, if a prior art device, in its normal and usual operation, would necessarily perform the method claimed, then the method claimed will be considered to be anticipated by the prior art device. When the prior art device is the same as a device described in the specification for carrying out the claimed method, it can be assumed the device will inherently perform the claimed process. In re King, 801 F.2d 1324, 231 USPQ 136 (Fed. Cir. 1986). Therefore the previous rejections based on the apparatus will not be repeated.

1. Method of operating a synchronous rectifier comprising a MOSFET, the method comprising the step of: controlling an output voltage of the synchronous rectifier by controlling the channel-switching of the MOSFET (Q1, column 3 lines 4-64) and determining a positive sign-change (column 3 lines 35-40) of a channel voltage such that the channel voltage becomes positive; performing an on-switching of the channel of the MOSFET a first time period after the positive sign-change of the channel voltage and wherein the first time period is determined on the basis of a control error voltage (column 3 lines 48-51) determining a positive sign-change of a channel voltage such that the channel voltage becomes positive; performing an on-switching of the channel of the MOSFET upon detection of the positive sign change; and performing an off-switching of the channel of the MOSFET after a second period of time (based on switching modulation of the circuit) the second time period is determined on the basis of a control error voltage (output of comparators) the channel switching of the MOSFET is duty-cycle modulated (the circuit is modulated) the duty-cycle is controlled on the basis of the error voltage; and wherein the control of the duty-cycle is such that the larger the error voltage, the larger the duty-cycle (this is part of the circuit feedback control system) step of: low-pass filtering (using C1) an output voltage of the synchronous rectifier with a time constant larger than a period of an input voltage of the synchronous rectifier.

For apparatus claims 9-13, note that under MPEP 2112.02, the principles of inherency, if a prior art device, in its normal and usual operation, would necessarily perform the method claimed, then the method claimed will be considered to be anticipated by the prior art device.

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When the prior art device is the same as a device described in the specification for carrying out the claimed method, it can be assumed the device will inherently perform the claimed process. In re King, 801 F.2d 1324, 231 USPQ 136 (Fed. Cir. 1986). Therefore the previous rejections based on the methods will not be repeated.

*Allowable Subject Matter*

3. No claims are allowable over the prior art of record.

*Conclusion*

Any inquiry from other than the applicant/attorney of record concerning this communication or earlier communications from the Examiner should be directed to the Patent Electronic Business Center (EBC) at 1.866.217.9197. Any inquiry from a member of the press concerning this communication or earlier communications from the Examiner or the application should be directed to the Office of Public Affairs at 703.305.8341. Any inquiry from the applicant or an attorney of record concerning this communication or earlier communications from the Examiner should be directed to Examiner Riley whose telephone number is 571.272.2083. The Examiner can normally be reached Monday through Thursday from 7:30-6:00 p.m. Eastern Standard Time. The Examiner's Supervisor is Karl Easthom who can be reached at 571.272.1989. Any inquiry about a case's location, retrieval of a case, or receipt of an amendment into a case or information regarding sent correspondence to a case **should be directed to 2800's Customer Service Center** at 571.272.2815. Any papers to be sent by fax MUST BE sent to fax number **571-273-8300**. Any inquiry of a general nature of this application should be **directed to the Group receptionist** whose telephone number is 571.272.2800. Status information of cases may be found at <http://pair-direct.uspto.gov> wherein unpublished application information is found through private PAIR and published application information is found through public PAIR. Further help on using the PAIR system is available at 1.866.217.9197 (Electronic Business Center).

November 06

  

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**Shawn Riley**  
Primary Examiner